2004 Utah USDI-BLM Aquatic Program:

Utah BLM manages more than 22 million acres with most of our land being contiguous blocks. Scattered throughout these acres of managed land are approximately 200 miles of stream typically considered suitable for salmonid fishes. A portion of these 200 stream miles are located in historic and existing Bonneville cutthroat habitat.

Our aquatic program is funded primarily as a riparian program with little funding allocated to fisheries. We devote most of our time to the riparian program with other programs, primarily Challenge Cost Share, focused in fisheries.

During 2004, into 2005 and probably into 2007 most field offices of Utah BLM will be concentrating on updating their Land Use Plans. All of these plans are contracted with various outside firms but still demand a significant amount of time for BLM biologists to guide the process and to ensure quality of the document. This has taken much of our time and will continue to do so in the future.

Besides the planning work mentioned above. we have submitted a work proposal to our Washington Office for the Comprehensive Watershed Initiative. This work was submitted as a $5,000,000, 5 year tamarisk control project. This activity would be focused in high priority riparian areas throughout the BLM lands in high-valued fish bearing reaches of streams. It is intended to control the invasive species as well as restore the land to native riparian species. If funding becomes available for this activity, work would begin in 2006.

Accomplished work in 2004 included:

Stream Habitat Inventory	172 miles
Riparian and Channel treatments	6 miles
Treatment Project	11 projects
Allotment Evaluation	3 allotments
Monitoring Past Projects	77 miles
Past Project Maintenance	51 projects

Questions or concerns with any of the above information can be directed to:

Tom Mendenhall
Utah BLM State Office
Fish Biologist/Riparian Specialist
Salt Lake City, UT
(801) 539-4073

Great Basin National Park

2004 Bonneville Cutthroat Activities

The park has focused 2004 activities on monitoring BCT populations, treating Johnson Lake, comparing the recovery of macroinvertebrates following both rotenone and antimycin treatments, and presenting papers at conferences.

Monitoring

Strawberry Creek

A population survey using 100 m 3-pass depletion method found 28 BCT in the 2004 survey, an increase of 56% from the 2003 survey. The BCT have also moved down to the newly established (2003) beaver ponds, approximately ½ mile downstream from the 2002 reintroduction site.

South Fork Bin Wash

BCT were first reintroduced into South Fork Big Wash in 2000. In 2002, a population survey found that there were 31 fish in the 100 meter long study area, including 18 young of the year (YOY). In 2004, the survey was conducted again and found65 fish in the same area with 55 YOY, an increase of overall fish numbers by 110% and of YOY by 206%.

Snake Creek

Effectiveness monitoring of the 2002 antimycin treatment: five miles were electroshocked, with no fish contacted.

Johnson Lake Treatment

Johnson Lake, the headwaters of Snake Creek, was treated in 2004 to remove any threat of non-native brook trout from spilling over into the recently treated areas of Upper Snake Creek. The treatment occurred August 9-12,2004 and September 27-29,2004 using antimycin. Bruce Rosenlund of the USFWS assisted with the treatment. An algae bloom in August caused the pH levels to raise to an unprecedented 9.5, so the treatment was only effective in removing the smaller fish, up to about 150 mm. The treatment was repeated in late September, and a snow storm assisted with keeping the pH levels in the 7.5-8.5 range. It appears that all fish were removed the lake.

Macroinvertebrate Comparisons

Strawberry Creek was treated with rotenone in 2000, with 5 ppm dispensed for one hour and 2 ppm for seven hours over two days. Macronvertebrate abundance declined 85% (1762/m^2 to 263/m^2) at one-month post-treatment and taxa richness was reduced 95% at one-week post-treatment. Ephemeroptera, Plecoptera and Trichoptera (EPT) group abundance declined 99% (833/m^2 to 10/m^2). Except for one sample, abundance and Taxa richness has not exceeded pre-treatment levels after three years. Five species had not returned after one year and two species are still absent after three years.

In contrast, Snake Creek was treated with antimycin in 2002, averaging eight ppb for eight hours. Total abundance declined 61% (1642/m^2 to 635/m^2) while EPT abundance declined 54% (766/m^2 to 353/m^2) one-month post-treatment. Taxa richness declined less than 30%. All but one species has returned after one-year. It appears that macroinvertebrates were least impacted by antimycin.

Papers Presented

Baker, G.M., Darby, N.W., Williams, T.B. Striving for harmony: bringing back the Bonneville cutthroat trout in Great Basin National Park. Presented at the 2004 American Fisheries Society Annual Meeting, Madison, WI. Published abstract.

Baker, G.M., Darby, N.W., Williams, T.B. Balancing Bonneville cutthroat trout with non-native salmonids in Great Basin National Park. Presented at the 2004 Wild Trout VIII Meeting, Yellowstone, WY. Paper to be published in the proceedings.

Darby, N.W., Williams, T.B., Baker, G. M, and Vinson, M. Minimizing piscicide effects on other aquatic species as part of native cutthroat trout restoration. Presented at the 2004 American Fisheries Society Annual Meeting. Published abstract.

Darby, N.W., Williams, T.B., Baker, G. M, and Vinson, M. Minimizing effects of piscicides on macroinvertebrates. Poster displayed at the 2004 Wild Trout VIII Meeting, Yellowstone, WY. Paper to be published in the proceedings.

2005 Plans

1. Reintroduce BCT into Upper Snake Creek with NDOW's assistance using Hendry Creek as the donor population.
2. Reintroduce BCT into South Fork Baker using Mill Creek as the donor population.
3. Continue monitoring BCT populations.
4. Monitor effectiveness of Johnson Lake treatment.
5. Submit macroinvertebrate recovery paper for publication.

Contact: Gretchen Baker, 100 Great Basin National Park, Baker, NV 89311, (775) 234-7331 x267, Gretchen_Baker@nps.gov

2004 IDFG Activities

Completed genetic analysis of 117 adult cutthroat trout sampled at Swan Creek in Utah and 30 fish randomly sampled from Bear Lake. Two hybrids were observed from the lake sample. The samples from Swan Creek showed 3 F1 hybrids and 1 > F1 hybrid.

- Continued St. Charles and Fish Haven working groups. Receive federal funding to install two fish screens on irrigation diversion on St. Charles Creek.

- Renovated Montpelier Reservoir to remove illegally introduced walleye. This project was completed to prevent establishment of walleye in the Bear River above Cove Dam.

- Completed entering all fishery survey data collected in the Bear River and Malad River Drainages. Data from BLM, USFS, IDFG, DEQ, ISU, USU and private consultants were included in the database. The database includes sampling information from 1970s to 2004. The data are being used to complete a status review for BCT in Idaho.

  Continued working on an Idaho BCT conservation plan. Expect to have a draft available 1 December 2004. We will solicit comments on draft.

- Collected genetic samples from Second and Third Creeks in the Malad River Drainage.

2005 goals

- Finalize Idaho's BCT conservation plan

- Complete a comprehensive survey of the BCT populations in the mainstem Bear River

- Work with ISU graduate student and Dr. Ernest Keeley on a BCT telemetry study in the Bear River (funded by PacifiCorp)

  Complete genetics work from 30+ tributaries in the Bear River and Malad Drainages in Idaho. Funding provided by PacifiCorp and IDFG.

SUMMARY OF 2004 BONNEVILLE CUTTHROAT TROUT FIELD ACTIVITIES
NEVADA DEPARTMENT OF WILDLIFE
WHITE PINE COUNTY, NEVADA

A. Hendrv's Creek BCT Population Survey

Hendry's Creek (north Snake Range) contains a pure population of BCT and is the only confirmed remnant population in the State of Nevada. Eight survey stations were sampled using a 3-pass 100' technique. Preliminary results show population estimates of 818 fishlmile, which is lower than the estimate of 1078-1218 fishlmile found in 1999.

B. Mill Creek Population Survey

Mill Creek (south Snake Range) contains a pure population of BCT whose origin is yet unknown. One survey station was sampled using a 3-pass 100' technique. Preliminary results show population estimates of 898 fishlrnile, which is considerably higher than the estimate of 300-400 fishlmile found in 1999.

C. Pine / Ridge Creek BCT Population Survev

Pine / Ridge Creek (south Snake Range) is outside of historic range and contains a pure BCT population whose origin is unknown. Four survey stations were sampled using a 3-pass 100' technique. Preliminary results show population estimates of 827 fishlmile, which is higher than the estimate of 681-752 fishlmile found in 1999.

D. Hampton Creek BCT Population Survey

Hampton Creek (north Snake Range) contains a BCT population that was established from Pine/ Ridge Creek in 1953. Eight survey stations were sampled using a 3-pass 100' technique. Preliminary results show population estimates of 97 fishlrnile, which is considerably lower than the estimate of 443-480 fishlmile found in 1999.

E. Hampton Creek GAWS Level III Habitat Survey

A GAWS Level III habitat survey was completed at Hampton Creek (north Snake Range) in June of this year. Seven survey stations were sampled. Data analysis and results are pending.

F. Hampton Creek Temperature Monitoring

Hampton Creek (north Snake Range) contains a population of BCT that was established from Pine / Ridge Creek in 1953. Three temperature-recording thermographs (Optic StowAway Temp) were placed in Hampton Creek in June and will be retrieved next week in an effort to delineate maximum summertime temperatures and evaluate suitable habitat for BCT in the stream. Temperatures profiles from all previous BCT streams were well within thermal limits for BCT.

G. Conservation Strategy and Agreement for BCT in the State of Nevada

The Conservation Strategy and Agreement for BCT in the State of Nevada was completed last winter. The document is still awaiting review and comment from Nevada BCT Conservation Team Members. It will be revised and completed this winter and hopefully signed and implemented early next spring.

Submitted by:
Chris A. Crookshanks
Fisheries Biologist
Nevada Department of Wildlife – Ely Field Office
1218 N. Alpha Street
Ely, NV 89301
Phone: (775) 289 - 1655
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2004 CONSERVATION ACTIONS FOR BONNEVILLE CUTTHROAT TROUT PERFORMED IN SOUTHEASTERN IDAHO BY THE CARIBOU-TARGHEE NATIONAL FOREST AND PARTNERS

By Jim Capurso, Forest Fisheries Biologist
Louis Berg, Zone Fisheries Biologist

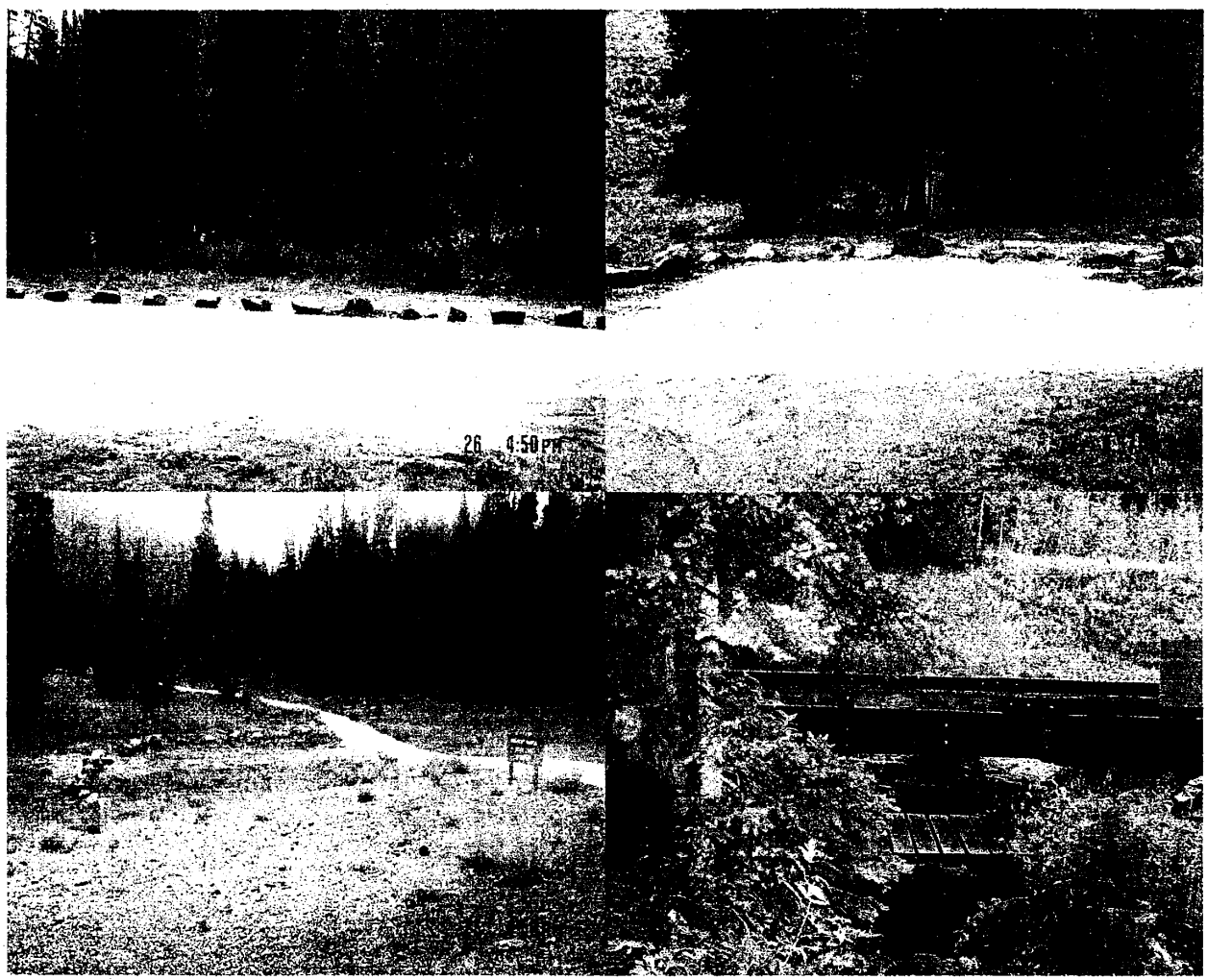
Presented to Bonneville Cutthroat Trout Conservation Team
November 4,2004
Salt Lake City, Utah

County	Water name	Implemented conservation action	Partners	Results
Franklin	Maple and Sugar creeks	Relocated 2.5 miles of ATV trail away from the streams and replaced two ford crossings with bridges (more is to be done next year)	Idaho Department of Parks and Recreation	Improved 2.5 miles of habitat
Bear Lake	Emigration Creek	Graveled 0.3 mile of unimproved road along the stream, moved a parking area away from the stream, installed barrier boulders to keep vehicles away from stream banks, and replaced an ATV trail ford crossing with a bridge (see attached photos)	Regional Advisory Council, Bowman Club	Improved 0.3 miles of habitat
	Thomas Fork	Installed fish passage structures and screens at two full-spanning irrigation diversions (in progress) (see attached write-up and photos)	Trout Unlimited, U.S. Fish and Wildlife Service, Bureau of Reclamation, Idaho Dept. of Fish and Game, Bear Lake Regional Commission, water users, etc.	Improved access to >20 miles of streams in Idaho and numerous additional miles of stream in Wyoming. Reduced losses of fish into major irrigation diversions

Bear Lake	Dry Creek	Held the Thomas Fork Conservation Agreement fall tour	Several agencies/ organizations	Received close scrutiny of Forest livestock grazing practices and effects. Decided to hold a training session next spring to let people learn how measurements are made so they can help us determine if grazing standards are being followed
	St. Charles and Fish Haven creeks	Participated in St. Charles and Fish Haven Irrigation and Fisheries Improvement Working Group to look at ways of improving connectivity of streams with Bear Lake	About 20 agencies/ organizations	Received results of a study on water rights and irrigation systems that may be helpful in formulating future projects. Improved St. Charles Irrigation Company's ability to monitor stream flows by installing some flow measuring devices. Received funding to begin a project to dike an arm of St. Charles Creek to prevent loss of fish and water into marshes of Bear Lake National Waterfowl Refuge
Caribou	Bear River	Participated in Bear River Environmental Coordinating Committee	13 agencies/ organizations	Discussed spending ECC funds on BCT projects
Caribou, Bear Lake, and Franklin	Numerous streams in Bear River Range	Incorporated stream-protection design features into alternatives for various NEPA projects (Range, Timber, etc.)	None	Reduced impacts from land uses
	All historic and currently occupied streams	Participated in range-wide assessment workshop in Ogden	Utah Division of Wildlife Resources, Idaho Dept. of Fish and Game, Wyoming Game and Fish Department	Mapped historic and currently occupied habitat, identified conservation populations and their health and risks, and identified expansion and restoration opportunities

Franklin and Bear Lake	Maple, Sugar, Eightmile, Mill, Giraffe, and St. Charles creeks	Began preparing plans and funding proposals for possible FY2005 work	Idaho Department of Parks and Recreation, Trout Unlimited, etc.	None yet

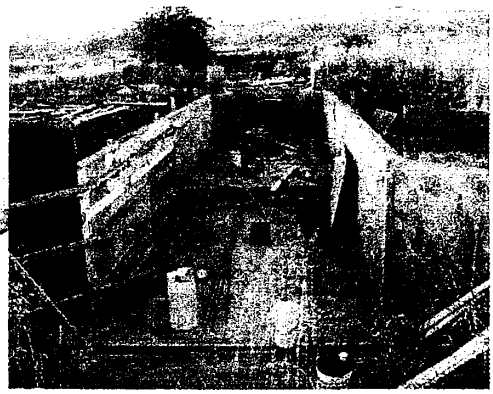
EMIGRATION CREEK PROJECT PHOTOS



THOMAS FORK FISH PASSAGE PROJECT

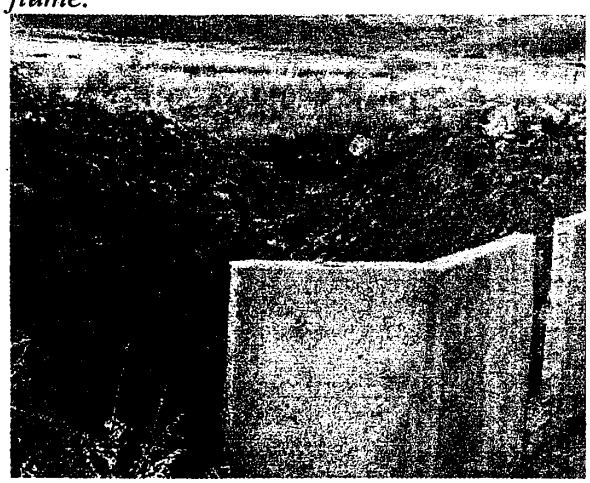
The Thomas Fork Safe Fish Passage Project is a cooperative project involving Caribou-Targhee National Forest, Trout Unlimited, US Fish and Wildlife Service, Bureau of Reclamation, Idaho Department of Fish and Game, Bear Lake Regional Commission, water users of the Thomas Fork Valley, and others. The goal of the project is to protect upstream- and downstream-migrating BCT in the Thomas Fork of the Bear River by screening and providing bypass channels around 3 full-spanning irrigation diversions. Prior to this project, the Taylor Diversion alone was killing more than 50% of the downstream-migrating BCT. In addition to the natural resource benefits, all project funding (except for the design engineer) will be spent in the local rural community. All construction contractors are locally based.

In the fall of 2004, we initiated construction at the Taylor and Thomas Fork Diversions. To date, we poured the concrete and excavated the bypass for the Taylor Diversion and excavated the screen location foundation and the bypass for the Thomas Fork Diversion. The screens for these 2 diversions are currently being fabricated. We will complete construction for the Taylor and Thomas Fork Diversion screens and bypasses in the early Spring of 2005 and complete construction for the Esche Diversion in late Summer 2005.

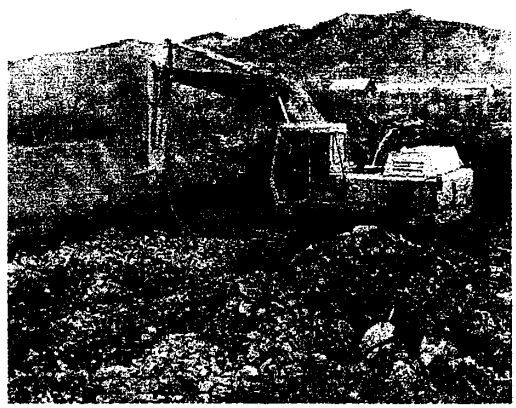


Concrete structure poured at inlet of Taylor diversion to house fish screen and bypass flume.

Backfilling concrete structure at Taylor Diversion inlet



Initial excavation offish bypass channel.



Excavating Thomas Fork screen area.

LEATHERSIDE CHUB WORKSHOP

Fisheries Biologists from the Caribou-Targhee National Forest participated in the 2004 Leatherside Chub Workshop held in Garden City, UT on 21 October. A total of 25 biologists and researchers were present representing Idaho Department of Fish and Game, Wyoming Game and Fish Department, Utah Division of Wildlife Resources, USDA Forest Service, Bureau of Land Management, and Brigham Young University. Due to intensive interest in the species and the success of a 2003 workshop organized by the Native Fish Committee of the Idaho Chapter of AFS, Utah Division of Wildlife Resources decided to host this follow-up workshop. Although the workshop did not deal directly with BCT, the BCT is sometimes sympatric with leatherside chubs and potential leatherside chub conservation efforts may benefit BCT.

The first half of the day included presentations by researchers and agency biologists that have studied the species. Dr. Jerry Johnson of Brigham Young University presented a paper to be published soon that separates the currently known species ***Gila copei*** into two species: *Lepidomeda* ***copei*** (northern species) and ***L. aliciae*** (southern species). It was suggested by workshop participants that the new species name should be simply "leatherside" since they are not true chubs. This recommendation was favorably received. The second half of the day consisted of agency discussions regarding a possible conservation agreement and strategy for the species.

Discussion between Leatherside Chub Workshop participants

CARIBOU-TARGHEE NATIONAL FOREST FISHERIES PROGRAM 2004 ANNUAL REPORT

C-T Forest Fish Bios

James Capurso
C-T National Forest
Fisheries Biologist,
Lee Mabey
Henrys Fork
Fisheries Biologist,
Louis Berg
Soda Sprgs/Montpelier
Fisheries Biologist,
Ted Kellogg
C-T Forest Fisheries
Biological Technician

Featured External Partners

US Bureau of Reclamation

Trout Unlimited

US Fish and Wildlife Service

Idaho Dept Fish & Game

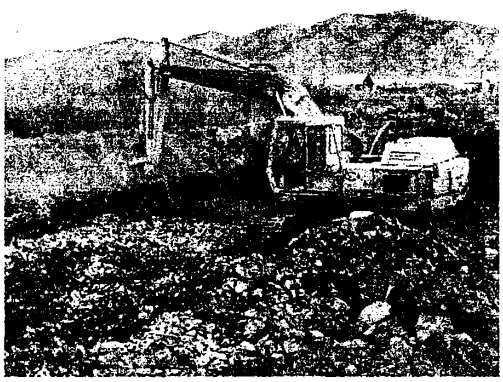
NRCS
Natural Resources Conservation Service

Bear Lake Regional Commission

Fish Screen Construction Begins on Thomas Fork Irrigation Diversions

Three full-spanning diversion structures on the Thomas Fork of the Bear River have been killing fish.. ..a lot of fish. In fact, according to a study by the University of Wyoming, one particular diversion alone has lured more than half of the downstream-migrating Bonneville cutthroat trout to their death in Thomas Fork Valley agricultural fields. The 3 major diversions on the river are the Taylor Diversion near Geneva, Thomas Fork Diversion near Raymond, and Esche Diversion near Border Junction.

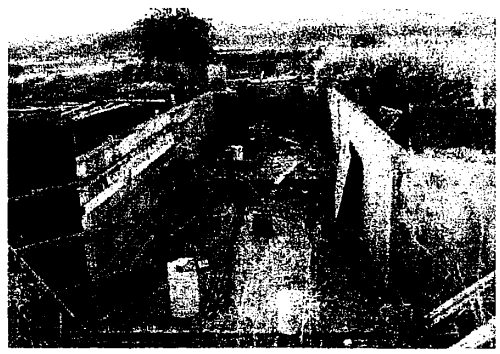
A grassroots restoration project is currently retrofitting the 3 diversions with fish screens and bypass channels so fish can safely migrate upstream and downstream past the diversion structures. Project partners include U.S. Forest Service, Trout Unlimited, U.S. Fish and Wildlife Service, U.S. Bureau of Reclamation, Bear Lake Regional Commission, Natural Resources Conservation Service, IDFG, and the water users of the Thomas Fork Valley.



Local contractor Bryce Boehme prepares the foundation for the Thomas Fork Diversion screen and bypass flume chamber

Most project construction funds have been spent within the local economy, with construction workers, heavy machinery, equipment, and materials corning from nearby communities.

This fall, a concrete chamber for the fish screen and bypass flume was poured for the Taylor Diversion and the bypass channels were excavated for the Taylor and Thomas Fork Diversions. All work on the Taylor and Thomas Fork diversions will be completed prior to the 2005 irrigation season. Construction on the Esche Diversion will occur in the late summer of 2005.



Cement walls and floor at the Taylor Diversion inlet will serve as the fish screen and bypass flume chamber.

Forest Fisheries Staff, Trout Unlimited, Natural Resources Conservation Service, and U.S. Fish and Wildlife Service have hosted annual Thomas Fork Water Users Workshops in Geneva since 2002. These workshops help irrigators understand the needs of fish that use the Thomas Fork in light of irrigation needs. Future workshops will also review the operation and maintenance of the new fish screens.

Sawtell Creek Gets an Extreme Makeover

The Sawtell Creek Yellowstone Cutthroat Trout Restoration Project continued in 2004 with habitat improvements and the second piscicide treatment. In 2003, Sawtell Creek was selected as the next target stream to replace non-native fish populations with native Yellowstone cutthroat trout to secure the long term viability of native cutthroat trout populations in the Henrys Fork Drainage. A first piscicide treatment occurred that year.

In the fall of 2004, water storage reservoirs near the bottom of the drainage were altered to improve their ability to rear fish. Channelized segments of Sawtell Creek were restored to their natural channels. The second of two piscicide treatments occurred to complete the elimination of brook trout from the drainage. Effectiveness monitoring indicated the chemical treatments were completely successful. Physical habitat improvements will be completed and Yellowstone cutthroat trout will be reintroduced in 2005. Project partners include NRCS, IDFG, Henrys Fork Foundation, and the Mickelsen 7-Ranch.

Improvements on the Sawtell Creek water storage reservoirs included replacing the outlet works so the pond water levels are more deep and stable (above). Segments of Sawtell Creek, dried by past irrigation practices, were re-watered for the first time in decades in 2004 (below).

Ted Kellogg Hangs Up His FS Waders

Ted Kellogg receives a roasting from Jim Fredericks, Idaho Department of Fish and Game Regional Fisheries Manager, at his retirement party.

At the end of May 2004, Ted Kellogg, Caribou-Targhee National Forest Fisheries Biological Technician, hung his Forest Service waders out to dry for the last time. At his retirement party at the Relay Station Restaurant near St. Anthony, he was roasted by many of his friends and colleagues. His primary retirement gift, a float boat, has received intensive use throughout his first summer of retirement.

Ted Kellogg was responsible for supervising the Forest Fisheries Crews during their fish distribution and habitat surveys over the last 5 years of extensive survey efforts. He maintained crew effectiveness and quality of work. Under his supervision, the fish crews surveyed and produced reports for every stream on the Forest. Ted's absence leaves a gaping hole in the Forest Fisheries Program.

Great Turnout for 2004 Free Fishing Day Events

The Caribou-Targhee National Forest hosted 3 Free Fishing Day Celebrations throughout Southeast Idaho in June 2004. Free Fishing Day is an opportunity to share the value of our fisheries resources and instill proper sport ethics in children. The Free Fishing Day Events were held at Mill Pond in Island Park, the Little Lemhi Boy Scout Camp near the South Fork Snake River, and Kelly Park Pond in Soda Springs. Nearly 250 children and their parents participated in the events.

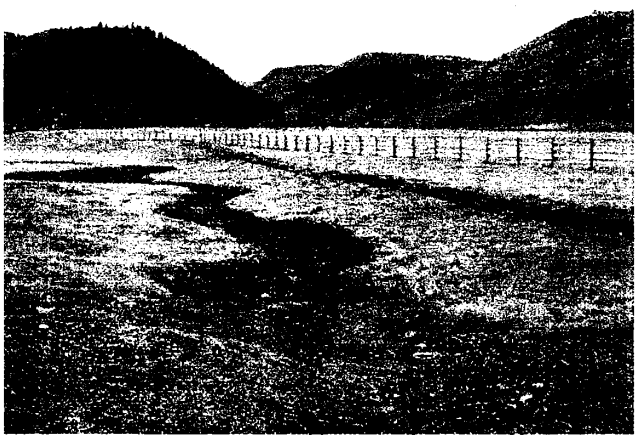
Kids' prizes were contributed by local and national merchants, including Dave's Tackle and Sports, Alco Discount Stores, Jama Villa, All Seasons Angler, Big 5 Sporting Goods, All American Sports, Cal Ranch Stores, Chota Outdoor Gear, Fishboy, FlyLogic, TroutHunter, Fred Meyers, General Plastics, Hydes Drift Boats, Idaho Sporting Goods, K-Mart, Shopko, Sportsmans Warehouse, Target, and Walmart. At the end of the day, every kid went home with prizes in their arms and smiles on their faces. Look for next year's C-T National Forest Free Fishing Day Events on June 11,2005.

Free Fishing Day Activities at Mill Pond, Island Park (top), Little Lemhi Boy Scout Camp, Palisades (middle), and Kelly Park Upper Pond in Soda Springs (bottom and left).

Garden Creek Restoration Project Nearly Complete

The interagency effort to restore Garden Creek as it flows through Conant Valley Ranch continued in 2004. The intent of the project is to re-establish connectivity between the resident Garden Creek Yellowstone cutthroat trout population on the Forest and the cutthroat trout in the river, increasing the long term viability of the Garden Creek fish population. Past irrigation and livestock activities on the ranch eliminated the structure and function of the stream channel, isolating the Yellowstone cutthroat trout population in upper Garden Creek.

This year, the remainder of the stream channel was excavated through Conant Valley Ranch. A small irrigation reservoir on Garden Creek was removed and a new point of diversion and fish screen were established for the pivot sprinkler system installed last year. A fence was constructed around the entire new stream channel to protect it from livestock on the ranch.



The newly excavated channel for Garden Creek meanders through Conant Valley Ranch between the Forest and the South Fork. A newly installed 4-pole fence protects the stream from livestock.

A self-cleaning, fish-screened irrigation pump inlet was placed on the bottom of the new Garden Creek stream channel, within the old pond bed location.

In the spring of 2005, a large culvert will be installed by the Idaho Transportation Department at the Highway 26 crossing of Garden Creek and native vegetation will be planted along the stream corridor. Annual water use coordination meetings between Conant Valley Ranch, Trout Unlimited, and the Forest will help incorporate consideration of fish needs into daily water use on the ranch.

This project is a partnership between Caribou-Targhee National Forest, Trout Unlimited, Conant Valley Ranch, Natural Resources Conservation Service, Idaho Transportation Department, Bureau of Land Management, and others. It is a feature project of the Trout Unlimited South Fork Home Rivers Initiative.

Road-Related Sediment is Reduced at Clear Creek

Before the project, the small culvert at Clear Creek would plug and road run-off would erode the fill, delivering sediment to the stream.

In late summer, Fisheries and Hydrology personnel from Soda Springs Ranger District directed the correction of the perennially failing Clear Creek culvert located under the Brockrnan Road (FS Road 77). The old, small culvert continually clogged and the crossing location was a low spot, encouraging erosion and direct drainage into Clear Creek. Clear Creek, a tributary of McCoy Creek, is considered by the C-T Forest as a Yellowstone cutthroat trout stronghold stream.

The intent of the project was to decrease sediment delivery to Clear Creek and increase the capacity of the crossing. The existing 36" diameter culvert was replaced with a *60"* diameter culvert. The larger culvert was partially embedded in the stream channel to simulate a natural stream bottom. Drainage was improved near the crossing to direct road surface water away fiom the stream and into vegetation. Beaver dam building activities were discouraged with the placement of fencing upstream of the culvert inlet. The construction area was planted with native grass seed.

The project included the placement of a larger culvert, and improvement of road drainage.

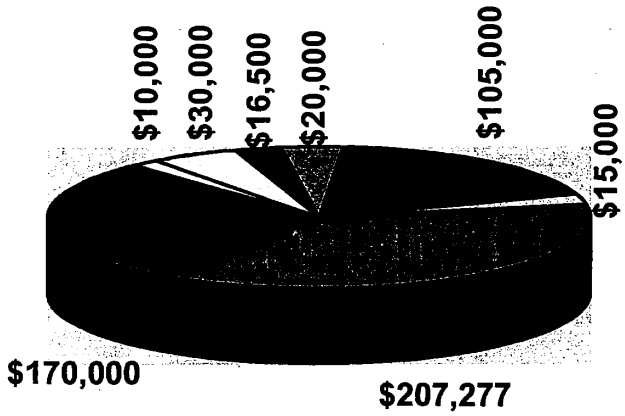
Burns Creek: Making the Best Better

A major premise of restoration ecology is to restore and protect the best habitat first and extend restoration efforts out from there. Such is the case with C-T Forest efforts to restore Yellowstone cutthroat trout populations in the South Fork of the Snake River.

Burns Creek, one of the Forest's most important Yellowstone cutthroat trout stronghold streams, is relatively pristine but has been experiencing impacts from trespass cattle, legal trail use, and increasing illegal trail development. The Palisades District Trail Crew. in partnership with State Parks and Rec built trail bridges at li fords, and improved existing trail segments. A fence was constructed to exclude cattle from upper Burns drainage. Next spring, illegal trails in the riparian area will be eliminated.

Explosives were used to improve a segment of Burns Creek Trail prior to eliminating illegal riparian trail development in lower Burns Creek.

2004 Caribou-Targhee Forest Fisheries Program Funding



- USDA Forest Service
- USFWS Private Stewardship Grant
- Trout Unlimited
- Bureau of Reclamation
- Greater Yellowstone Coordinating Committee
- USFWS Fish Passage Fund
- USFWS FRIMA
- C-T Forest Resource Advisory Committee

Giving It All You've Got

May 27th was Ted Kellogg's last day in Forest Service waders. I was honored to be there and challenged to host the celebration that followed. How do you honor someone that has given so much to the resources that I love? His retirement made me think of the importance of giving it all you've got, to make what you do matter.

I admire how he ended the Federal employment chapter of his life at the top of his game! He dedicated decades of his life to fisheries conservation and, in culmination of that effort, he led Forest Fisheries Survey Crews over the last 5 years to carefully document fish distribution and habitat conditions across the Forest. The stream survey reports he produced are extremely valuable to the Forest today and will be an important legacy of data for decades to come. Ted served us all with his enthusiasm for fisheries conservation and we already miss him.

Ted Kellogg
C-T Forest Fisheries
Biological Technician

James Capurso
C-T National Forest Fisheries Biologist

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2004 Bonneville Cutthroat Trout Work
Wasatch Cache National Forest

Paul Chase and Paul Cowley
3 November 2004

2004 Electrofishing Surveys (Logan Ranger District)

The Wasatch-Cache National Forest sampled 20 streams on the Logan District to determine current distribution and trends. Utah Division of Wildlife Resources last sampled most of these streams in 1999. USU sampled the mainstem Logan River and Temple Fork. In addition, USU conducted surveys on Rock Creek and Curtis Creek in the Blacksmith Fork Drainage.

Logan River Drainage
Overall, BCT continue to utilize most of the tributaries in the Logan River. The major exceptions are Bunchgrass and Twin Creek, in which no fish were found in 2004. A new culvert was installed in 2002 at Bunchgrass by UDOT. This culvert appeared to be acting as a fish migration barrier. The passage problem was correct by cutting back the culvert and deepening the pool by UDOT personnel in the fall of 2004. Forest Service personnel will monitor Bunchgrass in the spring of 2005 to determine if fish are able to pass this culvert. Twin Creek did not have adequate flows in 2004 to support a fishery. No habitat changes have occurred in Twin Creek, so it is likely that BCT will utilize this stream in the future as flows improve.

West Hodges and Theurer Hollow were fishless in 1999 due to inadequate flows. This was also the case in 2004. Fish have been found in these tributaries in the past, but it is likely that this use only occurs during high water years.

Blacksmith Fork Drainage
Bonneville cutthroat trout continue to persist in small numbers in most of the Blacksmith Fork tributaries. The small, isolated population found in Upper Saddle Creek was lost in 2004. This population was first documented in 2001 at which point it was determined to be at risk for extirpation due to lack of water, presence of non-native fish, lack of connectivity with other populations, and current year class failures. Approximately seven miles of ephemeral stream separates Upper Saddle Creek from the next BCT population. It is unlikely that BCT will be able to re-colonize this stream segment on their own.

Cache Valley Pront Streams
(High Creek, Cherry Creek, Summit Creek, Birch Creek, and Spring Creek)
None of the small streams draining from the east into Cache Valley support BCT populations. All these streams provide culinary and irrigation water to the local communities, and large stream segments are dewatered yearly. It is unlikely that BCT will be able to re-colonize these streams.

Logan River Drainage Population Data

Stream Name	2004 BCT Pop Est[1] #/km (#/mile)	1999 BCT Pop Est[2] #/km (#/mile)	Avg TL(mm)	Avg WT (g)	Avg K[3]	Comments
Spring Hollow	36 (59)	5 (8)	241.0	158.0	1.11	Brown trout present
Wind Cave	Present	N/A				BNT and BCT present. Beaver darns prevented electrofishing.
Right Fork	10 (16)	20 (32)	205.0	84.0	0.98	BCT appear hybridized. Browns present.
Cottonwood	269 (433)	144 (232)	87.0	10.4	1.10	
Spawn Creek	170 (273)	63 (101)	185.3	96.0	0.95	BKT present. BNT present downstream
Twin Creek	0	90 (145)	0	0	0	Insufficient flows in 2004.
Little Bear Creek	104 (168)	483 (778)	84.8	5 3	1.04	
Tony Grove Creek	303 (487)	201 (323)	73.9	4 2	N/A	No fish over 100mm TL captured.
Bunchgrass	0	63 (101)	0	0	0	Banier (culvert) prevented BCT from accessing Bunchgrass.
White Pine	438 (703)	507 (816)	91.3	11.3	0.98	BKT present upstream.

1 Population estimates for age-1 and older BCT.

2 1999 population estimates taken from Thompson, P., S. Tolentino, K. Sorenson, and B. Nielson. 2000. Bonneville cutthroat trout (Oncorhynchus clarki utah) survey and monitoring activities in the Logan River (sections 05-07) Drainage, 1999. Utah Division of Wildlife Resources, Ogden, Utah.

3 Average condition factor determined fiom fish over 100 mm TL.

2004 Non-Native Removal Projects

Spawn Creek (Logan River)

The Forest Service mechanically removed brown trout and brook trout fiom approximately 1.5 miles of Spawn Creek. A total of 418 brown trout and 31 brook trout were removed. Brown trout to cutthroat trout ran about 4 to one.

West Fork Bear River

The Forest Service mechanically removed all non-native fish encountered in the West Fork above Whitney Reservoir. Approximately one mile of stream was treated. A total of 63 brook trout, 26 rainbow trout, and 58 tiger trout were removed.

Riparian Fencing Projects

Wheeler Creek in the Woodruff Drainage (Ogden District)

Approximately 0.5 miles of Wheeler Creek was fenced in 2004 to reduce impacts fiom cattle grazing. In addition, cattle herding practices were modified to prevent trailing

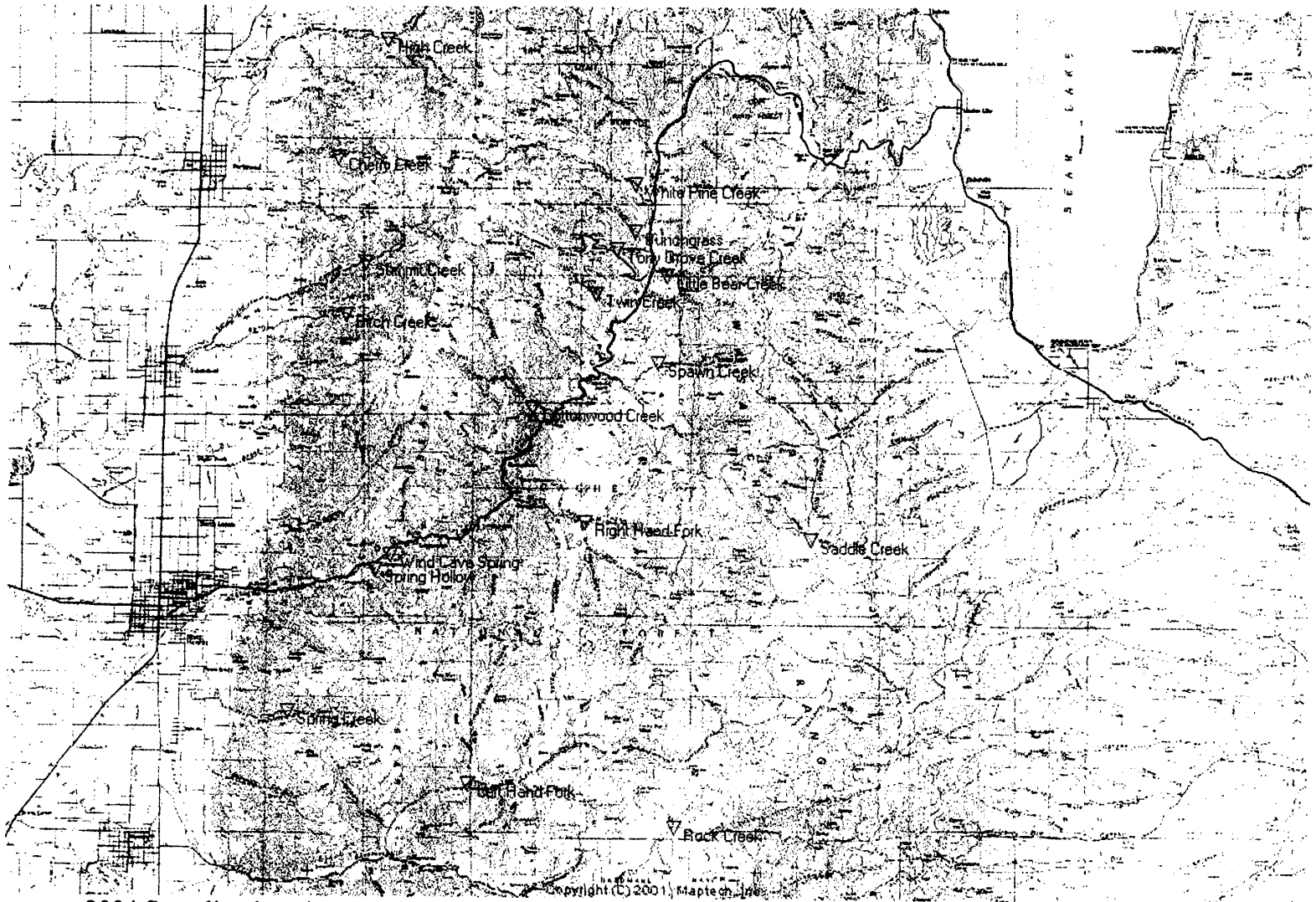
along/through the stream. In 2005, additional riparian fences and watering troughs will be constructed in this drainage to improve conditions.

Spawn Creek in the Logan River Drainage (Logan District)
In 2005, USU and the Logan Ranger District are planning the construction of a riparian fence around Spawn Creek (approximately 100 acre exclosure). The purpose of the project is to determine if removing cattle can reduce sedimentation rates and decrease whirling disease infection rates in Bonneville cutthroat trout. USU will also going to monitor the vegetative response within the exclosure.

Logan River (Logan District)
A small portion of the Logan River (approximately 7 acres) was fenced to reduce impacts from cattle grazing. Cattle were congregating at this location due to good feed and water. Fencing this area should help disperse cattle and reduce impacts.

Mill Creek Drainage (Evanston District)
The North Slope Road was narrowed down to reduce sedimentation coming off the road.

Hayden Fork (Evanston District)
Tree spraying to reduce bug caused mortality. Trees along the Hayden Fork had pheromone packets put on the trees to reduce mortality.



2004 Sampling locations on the Logan Ranger District.

BCT Conservation Activities, 2004 NRO

1) Right Fork of the Middle Fork of the Ogden River

One station was electrofished at the headwaters. 62 +/- 0 BCT/mile were present. A genetic sample (n=30) was collected.

Three additional stream reaches were spot electrofished downstream with BCT being present in all three reaches of the Right Fork and some rainbow trout and hybrids present near the confluence with the Middle Fork.

2) Cinnamon Creek

One station was electrofished near the confluence with the East Fork of the Little Bear River. Bonneville cutthroat trout, rainbow trout, hybrids, brown trout, mountain sucker, and sculpin were present (Table 1).

Table 1. Species composition in the lower reaches of Cinnamon Creek, 2004.

Species	#/mile	lb/acre	Avg TL (mm)	Avg WT (g)	K
BNT	49 +/- 0	0.9	193 (60-375)	185 (2-523)	0.97
Age 1+ BCT	395 +/- 89	1.6	149 (92-300)	41 (2-211)	0.68
Age 0 BCT	Present		48 (36-55)		
BCTxRBT	181 +/- 0	2.2	223 (123-290)	122 (10-325)	0.93
RBT	231 +/- 11	2.0	206 (125-244)	90 (15-147)	0.92
MTS	Common				
sculpin	abundant				

Spot electrofishing was completed in the headwaters of Cinnamon Creek at the confluence with Red Rock Creek. Only BCT were present and a genetic sample was collected. A waterfall barrier exists between the two stations.

3) Red Rock Creek

Spot electrofishing was completed in the lower reaches of Red Rock Creek, a tributary to Cinnamon Creek. BCT occupy approximately 300 m of this stream.

4) LaPlatta Creek

This stream was walked and flows are not conducive to a resident fish population.

5) East Fork of the Little Bear River

One station was electrofished upstream from the confluence with Cinnamon Creek. Bonneville cutthroat trout, rainbow trout, hybrids, brown trout, mountain sucker, and sculpin were present (Table 2).

Table 2. Species composition in the EF of the Little Bear River upstream from Porcupine Reservoir, 2004.

Species	#/mile	lb/acre	Avg TL (mm)	Avg WT (g)	K
BNT	205 +/- 341	54	220 (68-350)	150 (4-394)	1.05
Age 1+ BCT	148 +/- 68	17	172 (100-290)	64 (8-214)	0.96
BCTxRBT	210 +/- 102	48	231 (130-305)	130 (18-232)	0.94
RBT	1041 +/- 52	169	200 (114-338)	93 (13-360)	0.98
MTS	sparse				
sculpin	sparse				

Spot electrofishing was completed in the headwaters of the East Fork of the Little Bear River. BCT, BCTxRBT, BNT, and fathead minnow were found.

6) Chalk Creek section 02

The USFWS (Karl Flernrning) restored a portion of Chalk Creek section 02 in 2001. Two stations were electrofished in 2001 (one in the portion of stream targeted for restoration and a reference reach upstream). These two stations were again electrofished in 2004 (Table 3). Densities of non-game fish remained similar between years.

Table 3. Response of BCT to stream restoration in Chalk Creek section 02.

Reach	# of BCT caught	#/mile	lb/acre	Avg TL (mm)	Avg WT (g)	K
Station #1 - prerestoration	4	32 +/- 0	12	353 (273-399)	457 (170-650)	0.96
Station #1 - postrestoration	17	143 +/- 39	43	314 (227-388)	308 (143-619)	1.04
Station #2 – prerestoration	5			243 (80-314)	180 (6-316)	0.99
Station #2 – postrestoration	7	63 +/- 0	16	292 (169-349)	317 (48-459)	1.14

7) Fisher Creek Canyon

Fisher Creek Canyon, a stream near Park Valley, UT, was sampled in 2004 to determine if BCT may have historically occupied this portion of Box Elder County. 106 rainbow trout (2098 +/- 436/mile) were caught in a 100 m reach. No evidence of BCT or hybrids were found, consequently, if BCT historically occupied this stream, the population was likely extirpated prior to the settlement of Utah.

8) Rock Canyon

Rock Canyon is also a stream near Park Valley, UT. Spot electrofishing in this stream during 2004 also yielded a rainbow trout fishery. No evidence of BCT or hybrids were found.

9) Beaver Creek (Weber River Tributary)

Beaver Creek was sampled just upstream of the Forest Service boundary in September 2004. One hybrid was observed. Stream temperature in this stream was 21°C.

Table 4. Species composition in Beaver Creek at the Forest Service Boundary sampled in September 2004.

Species	#/mile	lb/acre	Avg TL (mm)	Avg WT (g)	K
Age 1+ BCT	1323±86	26	118 (75-208)	19 (2-86)	0.94
MWF	306±0	50	254 (168-293)	161 (54-240)	0.95
Longnose Dace	Abundant				
Speckled Dace	Abundant				
Redside Shiner	Common				
Mottled Sculpin	Abundant				
Mountain Sucker	Abundant				

10) Curtis Creek (Reference Reach)

This sample location is located just upstream of the elk exclosure on Hardware Ranch. The catch was dominated by brown trout. Some cutthroat were found, but hybrids and rainbow trout were also present.

Table 5. Species composition in the habitat restoration monitoring reference reach in May **2004.**

Species	# Caught	#/mile	lb/acre	Avg TL (mm)	Avg WT (g)	K
Age 1+ BCT	9	102±34	5	135 (63-285)	37 (3-155)	0.97
Hybrids	2	21±0	2	233 (195-270)	117 (75-160)	0.91
RBT	2	21±0	4	247 (189-305)	130 (64-195)	0.82
BNT	84	917±66	156	216 (85-365)	122 (5-480)	0.97
Mottled Sculpin	20	Common				

11) Curtis Creek (Rehabilitated Reach)

This reach was located in the elk exclosure on Hardware Ranch. The stream was reconstructed in October **2001.** Hybrids and brown trout dominated the catch.

Table 6. Species composition in the reconstructed reach of Curtis Creek sampled in May **2004.**

Species	# Caught	#/mile	lb/acre	Avg TL (mm)	Avg WT (g)	K
Age 1+ BCT	1	16±0	1	142	34	1.19
Hybrids	4	72±47	5	164 (75-203)	50 (9-80)	1.19
BNT	27	658±563	156	216 (85-365)	122 (5-480)	1.05
Mottled Sculpin	2	Sparse				

13) Attended data entry workshop

14) Completed a draft of the Utah BCT Conservation Agreement and Strategy

2004 Annual. Report for Bonneville Cutthroat Trout Activities in the Central. Region, Utah Division of Wildlife Resources

	State Water ID #	Reach	Implemented Conservation Actions
1	IV AA 020	Red Butte Creek/Red Butte Reservoir	Stream was renovated in 1983 and I987 to remove brook trout in an effort to restore native BCT In October 1987, 60 Bonneville cutthroat were collected from North Fork of Little North Willow Creek and transferred to Red Butte. Streamside incubators have been used periodically since then to hatch eggs taken during the spawn. Endangered June sucker were stocked into the reservoir to create a refuge population for this species in the winter of 1992. It was not anticipated that this introduction will be detrimental to the Bonneville cutthroat. Population monitoring of spawning cutthroat trout from the reservoir indicate that the population is declining as well as health/condition (condition factor of BCT during spawn 2004 was 0.81). Population of June sucker continues to increase.
2	IV AA040B	Lambs Creek	Renovated in 1995. Population monitoring to evaluate success of streamside incubator in 2003 and previous stocking of BCT. Observed BCT ranging from 80 - 200 mm in length. Population estimate = 670/mile.
3	IV AA 080A	Little North Willow Creek	Population monitoring. Population doing well (about 500 BCT/mile). BCT moved above large barrier in 1995. Observed several size classes of BCT and documented recruitment.
4	IV AA 090A 01	Dry Creek (Bell Canyon)	Surveyed. Genetic sample collected.
5	IV 414B	Little Dell Reservoir	Brood for BCT expansion along Wasatch Front. Completed wild brood stock spawning and egg-take. Fishery has been tested for seven consecutive years for prohibited pathogens. In 2003, fish tested positive to whirling disease, however does not preclude taking eggs to hatchery. Observed 189 BCT in trap during spawn. Average length of BCT spawned was 421 mm. About 59,000 eggs were taken. Population monitored in October 3004. Fifteen cutthroat trout and seven brook trout were observed in gill nets. Fishing regulation change implemented in 2004 to encourage harvest of brook trout.
6		Mineral Fork	Tributary to Big Cottonwood Creek. Surveyed as potential BCT expansion. Streamflow, gradient, and other habitat components limiting BCT expansion.
7	IV 418 A	Upper Red Pine	Population monitoring. Managed as sport fishery. Observed several size classes of cutthroat trout ranging from 200 - 500 mm in length. Red Pine Reservoir also had serveral large (up to 600mm) cutthroat attempting to spawn in tributary to Red Pine Reservoir. Plan to stock Red Pine Reservoir with BCT in 2005.
8	IV 423	White Pine Lake	Population monitoring, observed BCT which were stocked into tributary in 2003. Stocked 2,000 BCT into lake in October 2004, tributary was unaccessible. Dam operations need investigation, lake was being lowered significantly at time of stocking in 2004.

	State Water ID #	Reach	Implemented Conservation Actions
9	IV 421A	Upper Bells Reservoir	Population monitoring. Managed as sport fishery Observed cutthroat trout ranging from 300 - 380 mm in length. Fish were also observed throughout the stream below the reservoir.
10	V AK 020H	Sixth Water Creek	Graduate Research. Spawning surveys conducted. BCT spawning late June through July. Population monitoring. Otolith's extracted. Growth rates will be measured. Temperature recorders recently removed. Final report/thesis to be completed May 2005.
11	V AK 020H 08 01	Dip Vat Creek	Surveyed. Brown trout and cutthroat trout observed. Eight cutthroat trout were observed from previous stocking and three others were wild fish.
12	V AK 020J	Halls Fork	Surveyed. Genetic sample collected.
13		Burr Fork	Surveyed. Small tributary to Emigration Creek. Population is very small (observed 2 BCT in 300' reach of stream) and managed as Conservation Population
14	VI AA 180A 04	North Fork Twelve Mile Creek	Surveyed. Observed cutthroat trout and brook trout. Genetic sample taken.
15	VI AA 180 G	Cottonwood Creek Ephriam Canyon	Surveyed two locations. Observed rainbow trout and rainbow x cutthroat trout hybrids in headwaters and no fish lower in the drainage. No genetic sample collected.
16	VI AF-090A 03	Lake Creek	Surveyed. Observed cutthroat trout in headwaters. No cutthroat trout observed at Timber Lakes Estates area.
17	IV AR 360	Birch Creek	Population monitoring. Source of BCT for transplants to other streams on mountain range.
18	IV AR 370	Trout Creek	Population monitoring. Source of BCT for transplants to other streams on mountain range
19	IV AR 390	Red Cedar Creek	Renovation completed in 1999. BCT introduced in 2001. BCT were not observed in headwaters, warranting further monitoring. BCT observed low in drainage. Supplemented with BCT from Trout Creek.
20	IV AR 400	Indian Farms Creek	Renovation completed in 2002. BCT recruitment observed in 2003 and 2004. Supplemented with BCT from Trout Creek.
21	IV AR 410	Toms Creek	Renovation completed in 1995. Population monitoring in 2004 revealed rainbow trout present, confirmed mitochondrial DNA in Oct 2004. Plans to renovate in 2005.
22	IV AR 420	Basin Creek	Renovation completed in 2002. BCT recruitment observed in 2003 and 2004.
23		Douglass Pond	Completed wild brood stock spawning and egg take. Approximately 3,200 eggs taken during spawn and placed in streamside incubator. Problems with water supply and fungus resulted in poor hatch success. Roughly, 20-30 fish available to transplant to streams on Deep Creek Mountain Range. Transplanted 20 BCT from 2003 spawn to-Indian Farms Creek.

BONNEVILLE CUTTHROAT TROUT

*Work Completed During **2004** for BCT Conservation in the Southern GMU*

Items listed in standard print include the 2004 work plan, *accomplishments are presented in italics.*

1. Wild brood stock spawning and egg-take at Manning Meadow Reservoir (VI 402). *Successful egg-take and culture of BCT was completed for the **13th** consecutive year.*

2. Continue working on NEPA for new restoration projects. This will include Scoping and analysis of Pole Creek (VI AA 360 D 01), North Creek (VI AB 070), Fish Creek (VI AA 360 E), Picnic Creek (VI AA 360 E 02) and Shingle Creek (VI AA 360 F) as possible restoration sites for Bonneville cutthroat trout. Cottonwood Creek (VI AA 510 L) and Deer Creek (VI AA 510 J) will be included in the plan to satisfy State law and County requirements for re-introduction of Bonneville cutthroat trout. Populations of nonnative cutthroat trout were present in these latter two streams before the Sanford fire. Restoration projects are being developed in cooperation with the USFS and coordinated with USFS fuel reduction and controlled burning plans. Coordinated plans will allow long term threats of fire to be reduced, protection of unique stocks of cutthroat trout, and replication of native cutthroat populations in improved habitats. *Progress continued on this plan. A public meeting was held in Beaver, Utah as a follow-up to initial NEPA **scoping** actions. After making the presentation, no serious opposition to the plan was expressed.*

3. Continue collections of genetic samples for evaluation. Evaluations need to be completed for Salina Creek (VI AA 200), Beaver Creek (VI AA 200 G), Pole Creek (VI AA 360 D 01), Lost Creek (VI AA 210), and Willow Creek (VI AA 190). *We received results for Beaver Creek, Pole Creek, and Willow Creek. Plans still include submitting samples for Salina Creek, especially since results from Beaver Creek (a tributary stream) came back as **100%** BCT.*

4. The second of two consecutive year rotenone treatments of Robs Reservoir (VI 345) and Center Creek (VI AA 510 I) have been completed. Bonneville cutthroat trout were reintroduced into Robs Reservoir in October 2003. One additional treatment is planned on Center Creek in 2004. *The **2004** treatment (third consecutive year) of Center Creek was completed in September.*

5. Introduce Bonneville cutthroat trout again into Robs Reservoir and initially into Center Creek in late fall after the final rotenone treatment. Bonneville cutthroat trout produced from the Manning Meadow brood stock will be used for the re-introduction. *BCT were initially stocked into the stream a month after the treatment. A second cohort of BCT was stocked into Robs **Reservoir** during fall of **2004.** The **2003** cohort of BCT that was stocked a year earlier was visually observed while stocking the second cohort. These yearling fish had grown to **9-10** inches.*

6. Evaluate fire and drought losses of Bonneville cutthroat trout that occurred during 2002 and make plans for re-introductions, if appropriate. Limited initial re-introductions were conducted into the headwaters of South Ash Creek in 2003. Any remnant populations that might have been lost can be replaced with Bonneville cutthroat trout from exactly the same gene pool. This is possible because of past conservation efforts to replicate important remnant populations of native trout. Streams that need to be evaluated include South Ash Creek (I AA 060 A) and tributaries,

Leap Creek (I AA 060 B), Water Canyon Creek (I AA 020 C 01), Reservoir Canyon Creek (I AA 020 C 02 A), Cottonwood Creek (VI AA 510 L), Deer Creek (VI AA 510 J), and Deep Creek (VI AA 510 G 01). *The streams on the Pine Valley Mountain improved a great amount from conditions in 2003. Spring runoff was much less turbid and more representative of a relatively healthy watershed Consequently, additional transplants were made from Leeds Creek to South Ash Creek. Additional transplants still need to be made into Leap Creek and Water Canyon. Streams on Mount Dutton are still in poor condition and it will be at least another year beforefish can be put back into these areas (Deep Creek, Cottonwood Creek, Left Fork Sanford Creek, and Deer Creek.*

7. Complete disease certification and approvals to use Bonneville cutthroat trout from Leeds Creek (VI AA 040) for transplant to other areas. Initial disease certification was obtained in 2003. Samples will be collected in 2004 to maintain disease free status. This source of Bonneville cutthroat trout will be used to replace losses of native trout from fire and drought losses that might have occurred in the Virgin River drainage. *Leeds Creek was disease certified for another year, allowing transplants to be conducted through May of 2005.*

8. Spot-check Tenmile Creek to see if 2002-introduced Bonneville cutthroat trout reproduced in spring of 2003 and 2004. As a result of the Sanford fire, all remaining fish from the Deep Creek population of Bonneville cutthroat trout were moved into Tenmile Creek to preserve the gene pool. Native trout will likely NOT be moved back into Deep Creek until fish have naturally spawned at least 2 years in Tenmile Creek. *Surveys were conducted in the headwaters of Tenmile Creek and BCT were found to be doing well with reproduction noted*

Bonneville cutthroat trout **2004 Actions**
Southern Bonneville Geographical Management Unit (GMU)
Fishlake National Forest/Utah Division of Wildlife Resources

Initiated NEPA process for next round of restoration projects. Scoping conducted.

Sevier River Drainage

Manning Meadow Reservoir (VI 402)
Conducted spawning operations

Manning Creek (VI AA 430)
Integrated Riparian Evaluation Level II survey
Checked fish barrier

Salina Creek (VI **AA** 200) - potential remnant stream
Temperature monitoring (1 station)
Fish population monitoring (repeated 2 stations from 2000)

Beaver Creek tributary (VI **AA** 200 G) – potential remnant stream
Temperature monitoring (1 station)

Willow Creek (VI AA 190) – potential remnant stream
Completed collection of genetic sample – some intergression

Tenmile Creek (VI AA440) – reintroduction stream (2002 Deep Creek stock)
Checked barrier
Hiked creek to check cutthroat distribution
Fish population monitoring (3 stations)
IRE Level II survey

Birch Creek (east-VI AA 550)
IRE Level II survey

Clear Creek Drainage (tributary of Sevier River Drainage)

Contracted 2005 IRE Level II survey of Clear Creek Drainage

Clear Creek (VI **AA** 360) – long-term potential metapopulation connection stream
Temperature monitoring (2 stations)

Sam Stowe Creek (VI AA510 M 01)
Checked fish barrier

Fish Creek (VI **AA** 360 E) – potential reintroduction stream
Temperature monitor lower creek (1 station)

Shingle Creek (VI **AA** 360 F) – potential reintroduction stream
2 population stations/fish species distribution (fire effects monitoring)
Temperature monitor lower creek (2 stations)

Pole Creek/Three Creeks (VI AA 360 D 01) – potential reintroduction stream
Aquatic macroinvertebrate sample (1 station)

Beaver River Drainage

Birch Creek (west – VI AB 050 A2)
Exclosure maintenance

North Fork of North Creek (VI AB 070 A)
Checked fish barrier

Pine Creek (VI AB 010 B)
Exclosure maintenance
Coordinate with District Prescribed burning – reduced fuels

Bonneville Cutthroat Trout - 2004 Accomplishments

BRC Watersheds

Attended a workshop designed to assimilate data related to current and historic distributions of BRC

Viewed BRC spawning sites with personnel from the U.S. Forest Service and Trout Unlimited.

- We continue working on the Kemmerer Resource Management Plan (RMP). Reviewed and provided brief comments on the "Draft Affects Analysis" for the Kernmerer RMP. Participated in discussions at the Coordinators Meeting in Casper regarding Department involvement in BLM and FS area wide planning efforts.

  Reviewed the "Summary Report" and other information following workshop #1 to develop the "full (unreasonable) range of alternatives". Forwarded and discussed this information with other Department personnel and prepared and summarized comments to the BLM. Participated in workshop #2 to develop the "reasonable range of alternatives" and discussed this effort with other Department personnel.

  Reviewed the "Summary Report" and information regarding existing and proposed ACEC areas resulting from workshop #2 to develop the "Reasonable Range of Alternatives". We have proposed several ACEC areas that are either an expansion of existing ACEC or new area of critical habitat that needs protection. Proposed areas or expansions include Raymond Canyon ACEC, Smith Fork ACEC- including Dry Fork, Rock Creek/Twin Creek ACEC. By designating these areas as ACEC it will protect both aquatic and upland habitat. We discussed our concerns and proposals with other department personnel and prepared, summarized and sent comments to Habitat Protection to send to the BLM.

Thomas Fork Watershed

Electrofished and collected habitat data from Huff Creek

Electrofished and collected genetic samples from Raymond Creek. We have not sent those samples to a geneticist yet.

- Evaluated livestock impacts in S. Fork Raymond and fencing needs for Raymond / Mill Creek divide. We had no trespass cattle in Raymond Canyon this year. This is the first year it received complete rest even though that was suppose to have happened back in 1997

- Determined private land ownership and state land lessee status for Huff Creek head cut control projects and Raymond fence extension

Smiths Fork Watershed

- Discussed monitoring plan for Jerry Kirk's CRP Project on the Smiths Fork River with the landowner and NRCS and evaluated the area with the NRCS to select representative monitoring locations. Collected greenline and hydrologic data on Jerry Kirk's CRP Project on the Smith's Fork River.

- Reviewed and discussed the BLM's annual monitoring plan / proposal for the Smiths Fork Allotment with BLM. We provided edits and suggestions on the Smiths Fork AMP and sent comments to Habitat Protection. Provided them with our HQI data since it is a criteria in the AMP.

- Cokeville Reservoir Project with J. Kirk and WWDC, attended several meetings on the dam and its impacts to fish and wildlife. We provided comments on this proposal to S w i s e Engineering Consultants and WWDC. The proposed sites are lower are located just upstream from the Town of Cokeville. Impacts would occur at least on BHS, LSC and BRC.

- Discussed and coordinated with the BLM fisheries biologist to seek funding for the Coal Creek / Smiths Fork Road culvert project. Evaluated the Smiths Fork Road / Coal Creek culvert project with fish management and the BLM fisheries biologist, engineer, and hydrologist.

- The Smiths Fork River was sampled in order to calculate population estimates and to collect fish for a telemetry study being conducted by the University of Wyoming. Completed population estimates for three stations on the Smiths Fork.

- Evaluated and did minor maintenance on Klein Creek head-cut control project. Purchased fence materials for Klein Creek (Little Muddy trib.) exclosure to protect head-cut.

- Planted willows in the Coal Creek exclosure. We maintained the fence again this year for the exclosure and the permittee again cut the fence.

- Marked 20,000 BRC destined for the Smiths Fork River in the Bear River drainage.

Bear River

Reviewed and drafted preliminary comments on the BLMs "Draft Twin Creek Allotment Management Plan".